

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No
PCT/GB2005/000553

International filing date (day/month/year)
15.02.2005

Priority date (day/month/year)
17.02.2004

International Patent Classification (IPC) or both national classification and IPC
A61B17/32, A61B17/22, A61B17/00

Applicant
ESCHMANN HOLDINGS LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA



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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2005/000553

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2005/000553

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	6,13-16
	No: Claims	1-5,7-12,17-23
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

- 1 Reference is made to the following document:

D1 : US 4 898 574 A (UCHIYAMA ET AL) 6 February 1990 (1990-02-06)
D2: DE 34 21 390 A1 (SCHUBERT, WERNER, DR.MED; SCHUBERT, WERNER,
DR.MED., 4330 MUELHEIM, DE) 12 December 1985 (1985-12-12)
D3: DE 199 04 640 A1 (WITTENSTEIN GMBH & CO. KG) 10 August 2000 (2000-
08-10)
D4: DE 195 06 002 A1 (SCHALLER, GUENTER, 79110 FREIBURG, DE) 22 August
1996 (1996-08-22)
D5: US-B1-6 423 027 (GONON BERTRAND) 23 July 2002 (2002-07-23)
D6: US-A-6 110 164 (VIDLUND ET AL) 29 August 2000 (2000-08-29)
D7: US 2003/125660 A1 (MOUTAFIS TIMOTHY E ET AL) 3 July 2003 (2003-07-03)

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

A nozzle for generating a pressure jet of liquid, said nozzle comprising a hollow tube (11,16), wherein the tube has a restriction at the distal end in which an orifice is formed (figures 13/15), the width of the orifice being less and that of the lumen of the tube, and wherein the tube and restriction are integrally moulded from a plastic material (column 2, line 49 - column 3, line 8).

Jet nozzles of the same configuration entirely manufactured from plastic materials are also clearly disclosed in D2-D4.

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 19 is not new in the sense of Article 33(2) PCT. Extrusion is a standard method of manufacturing hollow plastic tubes for surgical use, its use to manufacture a known pressure jet nozzle is not novel.
4. Dependent claims 2-18, 20-23 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in

respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

Claims 2-3: See D1 to D4.

Claim 4: See D1, figure 13.

Claims 5,6: To have a wire embedded in the wall of the tube forming the nozzle or being placed in a parallel lumen within the wall of the tube forming the nozzle is extremely common in the field of flexible catheter-like instruments such as surgical jet cutters. D6 for example discloses a typical example of a wire reenforced catheter, its application to a catheter configured as a jet cutter is obvious and be without technical difficulty.

Claims 7,8,21,22: The plastics commonly used in flexible elongated surgical tubes exhibit the claimed physical characteristics.

Claim 9,23: The claimed polymers are no doubt chosen due to their good pressure withstanding qualities. While the claimed polymers are not explicitly mentioned in the cited prior art, it is clear that polymers are already used to manufacture high pressure nozzle for jet cutters, therefore it must be assumed that the polymers selected to make these prior art devices are the same or equivalent.

Claims 10,18: These claims are unclear and unallowable since their scope is undefined and unlimited. Since these claims currently effectively disclose any features in the application, they are therefore not new in view of D1 to D7.

Claims 11,12: All the jet cutting apparatus of D1-D5, and D7 disclose handpieces suitable for a nozzle as claimed and naturally have means for controlling the expelled pressure jet.

Claim 13: The simple annular collar disclosed in this claim is one of the many options available to the skilled person to connect a high pressure source to a high pressure output nozzle within a handpiece of a surgical jet cutter, see D7, figures 7A and 7B.

Claims 14-17: Document D5 discloses a handpiece for a surgical jet cutter having the features of claims 11, 14-17. The only difference present is the specific configuration of the nozzle. There is no reason why a nozzle according to claim 1 could not be employed on a handpiece according to D5. Replacing one known nozzle with another known nozzle on a handpiece does not constitute an inventive step.

Claim 20: It is common sense to assume that this is a standard production step.